

Least Common Multiples

A **multiple** of a number is the product of the number and a whole number. When the same number is a multiple of two or more numbers, it is a **common multiple**. The smallest common multiple of two numbers is the **least common multiple (LCM)**.

— Example —

Find the least common multiple (LCM) of 15 and 20.

List the common multiples of 15 and 20.

Multiples of 15:	15 1×15	30 2×15	45 3×15	60 4×15	...
Multiples of 20:	20 1×20	40 2×20	60 3×20	80 4×20	...

The LCM is the smallest number that appears on both lists. The LCM of 15 and 20 is 60.

Try It Find the least common multiple (LCM) of each pair of numbers.

- a. 6 and 9 Multiples of 6: 6, 12, 18, 24, 30 LCM: _____
 Multiples of 9: 9, 18, 27, 36, 45
- b. 12 and 18 Multiples of 12: 12, 24, 36, 48, 60 LCM: _____
 Multiples of 18: 18, 36, 54, 72, 90

Find the least common multiple (LCM) of 8 and 10.

- c. Write the first five multiples of each number.

Multiples of 8: _____

Multiples of 10: _____

- d. Choose the smallest number that appears on both lists. _____

Find the least common multiple (LCM) of each pair of numbers.

- e. 5, 7

- f. 4, 6

Multiples of 5: _____

Multiples of 4: _____

Multiples of 7: _____

Multiples of 6: _____

LCM: _____

LCM: _____